



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,375	01/02/2004	Kui Wong Yeung	007198-451	9145

21839 7590 07/20/2004

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

GREENE, JASON M

ART UNIT PAPER NUMBER

1724

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/749,375

Applicant(s)

YEUNG, KUI WONG

Examiner

Jason M. Greene

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/046,712.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/046,712, filed on 17 January 2002.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Reference sign 71 as mentioned on page 15, line 29. A proposed drawing correction or corrected drawings are required in reply to the Office action

Art Unit: 1724

to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claims

4. With regard to claims 1 and 19, the Examiner suggests Applicants replace the period at the end of line 15 with a comma to correct an apparent typographical error.

5. With regard to claims 1 and 19, the Examiner suggests Applicants delete the bullets to improve the readability of the claims.

6. With regard to claims 1 and 19, the Examiner notes that the transitional phrase "including" has been interpreted as being an open-ended transitional phrase.

7. With regard to claim 5, the limitation "said filtering plane" has been interpreted as meaning the plane occupied by the filter.

8. With regard to claim 7, it appears as though the phrase "said first housing" in line 1 should be changed to read as "said front housing".

Art Unit: 1724

9. With regard to claim 18, it appears as though the phrase "said first aid compartment" in lines 2-3" should be changed to read as "said first air compartment".

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-3, 5-7, 14, 18, as it depends from claims 1-3, 5-7, and 14, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Chagnot '842.

With regard to claim 1, Chagnot '842 discloses a ventilating apparatus (10) including a main housing (14), a thermal exchanger (12), a first (28) and a second (26) air-moving device, and a removable air filter (76), said main housing including a front housing (14a), a rear housing (14b), a first (18) and a second (16) air compartment, and a filter compartment (80), said thermal exchanger and said air-moving devices being disposed within said main housing between said front and rear housings, said thermal exchanger including an intake section (18) and an exhaust section (16), said front housing including at least an aperture (29)

Art Unit: 1724

connecting to the downstream end or outlet of the intake section of said thermal exchanger, said first air compartment connecting said intake section of said thermal exchanger, said first air-moving device, and said filter compartment such that said filter compartment is disposed upstream of said intake section of said thermal exchanger for removably receiving said air filter, said second air compartment connecting said exhaust section of said thermal exchanger and said second air-moving device, and a section of said first air compartment upstream of said intake section of said thermal exchanger, being that section of said first air compartment containing said filter compartment, is adjacent to and accessible or communicable through said front housing in Figs. 1-5 and col. 7, line 4 to col. 12, line 26.

With regard to claim 2, Chagnot '842 discloses the front housing (14a) including an aperture (not numbered) through which said air filter can be inserted into or removed from said filter compartment in Figs. 2 and 4 and col. 11, lines 21-34.

With regard to claim 3, Chagnot '842 discloses the filter compartment generally extending between said front and rear housings in Figs. 2, 3, and 5.

With regard to claims 5 and 6, Chagnot '842 discloses the filtering plane of said filter forming a 90 degree angle with said front housing in Figs. 2-4.

With regard to claim 7, Chagnot '842 discloses the front housing further including at least an aperture (23) connecting to the upstream end of said exhaust section of said thermal exchanger in Figs. 2-4 and col. 7, lines 63-65.

With regard to claim 14, Chagnot '842 discloses the first and second air moving devices including rotary fans (28,26) driven by a common motor (50) in Figs. 3, 8, and 8A and col. 8, line 61 to col. 9, line 25.

With regard to claim 18, as it depends from claims 1-3, 5-7, or 14, Chagnot '842 discloses the apparatus being for transferring air between a confined space and an external space, wherein the first air compartment provides a path (24) for moving air from said external space into said confined space, said second air compartment provides a path (22) for moving air from said external space into said confined space, wherein, when installed for operation, said main housing bridges between said external space and said confined space such that said front housing and said rear housing are present respectively in said confined space and said external space, said aperture on said front face downstream of such intake section providing an inlet interface for air to move from said external space to said confined space in Figs. 1-8 and col. 7, line 4 to col. 12, line 26.

With regard to claim 19, Chagnot '842 discloses a ventilating apparatus (10) for transferring air between a first space and a second space including a

Art Unit: 1724

main housing (14), a thermal exchanger (12), a first (28) and a second (26) air-moving device, and a removable air filter (76), said main housing including a front housing (14a), a rear housing (14b), a first (18) and a second (16) air compartment, and a filter compartment (80), said thermal exchanger and said air-moving devices being disposed within said main housing between said front and rear housings, said thermal exchanger including an intake section (18) and an exhaust section (16), said front housing including apertures (29,31) connecting to the downstream end or outlet of the intake section of said thermal exchanger, said first air compartment connecting said intake section of said thermal exchanger, said first air-moving device, and said filter compartment such that said filter compartment is disposed upstream of said intake section of said thermal exchanger for removably receiving said air filter, said second air compartment connecting said exhaust section of said thermal exchanger and said second air-moving device, and at least a section of said first air compartment upstream of said intake section of said thermal exchanger, being that section of said first air compartment containing said filter compartment, is adjacent to and accessible or communicable through said front housing, and the front housing (14a) including an aperture (not numbered) through which said air filter can be inserted into or removed from said filter compartment, wherein when installed for operation, said main housing separates said first and said second spaces so that said front housing and said rear housing are respectively present in said first and said second spaces and apertures on said front housing downstream of such intake section of said thermal exchanger provide an inlet

Art Unit: 1724

interface for air to move from said first space to said second space in Figs. 1-5 and col. 7, line 4 to col. 12, line 26.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4, 12, 16, and 18, as it depends from claims 4, 12, and 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chagnot '842 in view of Oas et al.

With regard to claim 4, Chagnot '842 discloses the main housing including a longer side extending in a general lengthwise direction and including said front and rear housings and a shorter side generally extending from said front housing towards said rear housing, wherein at least an aperture (27) providing an upstream path to said filter compartment is provided on said longer side in Fig. 3. The Examiner notes that the longer side is 3.25 inches in Fig. 3 while the shorter side is 2.75 inches.

Art Unit: 1724

Chagnot '842 does not disclose at least an aperture providing an upstream path to said filter compartment being provided on said shorter side.

Oas et al. discloses a similar ventilating apparatus wherein an aperture providing an upstream path to a filter compartment is provided on said shorter side in Fig. 4.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the aperture on the shorter side of Oas et al. for the aperture on the longer side of Chagnot '842 in that shifting the location of parts without otherwise modifying the operation of the device is merely a choice of design. See *In re Japikse* 86 USPQ 70.

With regard to claim 12, Chagnot '842 discloses the air filter including a combination of activated carbon and a filter in col. 11, lines 4-45.

Chagnot '842 does not disclose the air filter including a HEPA filter.

Oas et al. discloses a similar device employing a HEPA filter in col. 5, lines 21-39.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the HEPA filter of Oas et al. into the air filter of Chagnot '842 to allow the air filters to remove 99.7 percent of particulates greater than 0.3 microns in diameter, as suggested by Oas et al. in col. 5, lines 4-45.

With regard to claim 16, Chagnot '842 does not disclose the thermal exchanger including a plurality of stacked metal sheets configured to form a

Art Unit: 1724

plurality of air passageways, when air-passageways formed on the two sides of said sheet are alternatively connected to said intake and said exhaust sections of said thermal exchanger.

Oas et al. discloses a similar device wherein the thermal exchanger (52) includes a plurality of stacked metal sheets configured to form a plurality of air passageways, when air-passageways formed on the two sides of said sheet are alternatively connected to said intake and said exhaust sections of said thermal exchanger in Figs. 2 and 4.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the stacked plate exchanger of Oas et al. for the rotary exchanger of Chagnot '842 in that such are alternate thermal exchangers in the art for exchanging thermal energy between two air streams. Mere substitution of one known thermal exchanger for another known in the art being within the scope of one having ordinary skill in the art.

With regard to claim 18, as it depends from claims 4, 12, and 16, Chagnot '842 discloses the apparatus being for transferring air between a confined space and an external space, wherein the first air compartment provides a path (24) for moving air from said external space into said confined space, said second air compartment provides a path (22) for moving air from said external space into said confined space, wherein, when installed for operation, said main housing bridges between said external space and said confined space such that said front housing and said rear housing are present respectively in said confined

Art Unit: 1724

space and said external space, said aperture on said front face downstream of such intake section providing an inlet interface for air to move from said external space to said confined space in Figs. 1-8 and col. 7, line 4 to col. 12, line 26.

14. Claims 8-11, 13, 15, 17, and 18, as it depends from claims 8-11, 13, 15, and 17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chagnot '842.

With regard to claim 8, Chagnot '842 does not disclose the front housing including a detachable member on which said apertures for connecting to said thermal exchanger and filter compartment are formed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the front housing having a detachable member in that making parts separable is merely a choice of design. See *Howard v. Detroit Stove Works*, 150 USPQ 164 and *Nervin v. Erlichman*, 168 USPQ 177, 179.

With regard to claims 9, 11, 13, and 17, Chagnot '842 does not disclose first or second air moving devices being disposed intermediate between the air filter and the upstream ends of the thermal exchanger, both the first and second air-moving devices being disposed upstream the intake and exhaust sections of the thermal exchanger, or the air filter being disposed intermediate between said first air-moving device and the upstream end of the intake section of the thermal exchanger.

Art Unit: 1724

It would have been obvious to one of ordinary skill in the art at the time the invention was made to shift the relative arrangements of the air filter, the air-moving devices, and the thermal exchanger in that shifting the location of parts without otherwise modifying the operation of the device is merely a choice of design. See *In re Japikse*, 86 USPQ 70.

With regard to claim 10, Chagnot '842 discloses the first air-moving device including a rotary fan having an axis which is generally perpendicular to said air filter in Figs. 2-8.

With regard to claim 15, Chagnot '842 does not disclose the first air-moving device including a combination of a first and a second rotary fan.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a second rotary fan into the first air-moving device of Chagnot '842 in that duplicating parts for a multiplied effect is merely a choice of design. See *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11.

With regard to claim 18, as it depends from claims 8-11, 13, 15, and 17, Chagnot '842 discloses the apparatus being for transferring air between a confined space and an external space, wherein the first air compartment provides a path (24) for moving air from said external space into said confined space, said second air compartment provides a path (22) for moving air from said external space into said confined space, wherein, when installed for operation,

Art Unit: 1724

said main housing bridges between said external space and said confined space such that said front housing and said rear housing are present respectively in said confined space and said external space, said aperture on said front face downstream of such intake section providing an inlet interface for air to move from said external space to said confined space in Figs. 1-8 and col. 7, line 4 to col. 12, line 26.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Kruse et al., Hunzicker, DeGregoria et al., Wogan, Kurematsu, and Yeung '861 references discloses similar ventilation devices.

16. This is a continuation of applicant's earlier Application No. 10/046,712. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory

Art Unit: 1724

action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1724

Jason M. Greene
Examiner
Art Unit 1724



jmg
July 13, 2004

PRIMARY EXAMINER
DUANE SMITH

D-S
7-19-04